
(http://www.washingtonpost.com/wpdyn/content/article/2009/02/27/AR2009022701549_pf.html). Considering how widespread, fatal and tragic this phenomenon is, it is important to understand it from a scientific perspective, and more importantly, to prevent it from occ.18 0 Troecrommpoey5 0 T24 0 TCID 9 >>-0.OPBT /CS0 cimp49.8 Tw 04 0 TC9 >>BPBT /C

Cases of forgotten children in cars involve a failure of the prospective memory system to function properly. An explanation for this failure is that the parent's habit memory system outcompetes their brain's prospective memory system. In all of the cases I've studied, the parent begins the drive with the plan to bring the child to a destination, but at some point during the drive the parent reports having lost awareness of the child in the car. In these cases the parent travels directly to the final destination (typically home or work), and in the process, exits the car without awareness that the child is still in the car.

Features in Common in All Cases: Impaired Prospective Memory When a Parent Loses Awareness of the Child in the Car

Although each case involves different circumstances, they share elements in common. The primary feature which is common to all cases is that the route the person took on the day in which the child was forgotten overlapped with similar routes the parent had driven previously, or, in a subset of cases, the parent had never before driven on that route with the child. Therefore, the most important feature of these cases is that the parent depended solely on his/her prospective memory to distinguish the drive with the child on that day from similar routes the parent had driven on other days that did not include the child.

There are three categories of driving routes in cases of forgotten children in cars. The first category is a multi-stop route, in which the parent had planned on making more than one stop during a drive, one of which was to take the child to a daycare provider. The second category is a single-stop route, typically to take a child to daycare provider, and then the parent had planned to drive to another destination, typically where the parent was employed. The third category is a non-stop route, in which the parent had a single destination, such as to go home or shopping, with the plan to retrieve the child from the car upon arriving at the destination. The common factor in all of these cases is that at a critical choice point along the drive, whether it was a multi-, single- or non-stop drive, all parents report having lost awareness that the child was in the car.

Factors That Contribute to the Loss of Awareness of a Child in the Car

I have studied the conditions that appear to increase the likelihood that a child will be forgotten in a car. The following are categories of influences that would impair prospective memory and would also increase the dominance of habit memory over prospective memory:

prospective, but not habit, memory. Although not obligatory, sleep deprivation helps us to understand why a subset of parents lost awareness of the child in the car.

3) There is often a change in the diving

4) Oftentimes the parent that had lost awareness of the child was not alone, and one or more passengers may have taken

Service to the Defense or State in an Advisory Role

January, 2008

Defense Expert Consultant on Brain, Memory and Stress to

Zwerling, Leibig & Mosely, P.C.

Charge: Manslaughter

Commonwealth of Virginia v. Balfour

A parent left a child in hot car while shopping. The child was unharmed.
December, 2016
Defense Expert Consultant on Brain, Memory and Stress to
Ron Hanes
State of Florida v. Troy Whitaker
Charge: Manslaughter
A child died when her father left her in his car

December, 2017
Defense Expert Consultant on Brain, Memory and Stress to
Jennifer Moster
State of Florida v. Steven Lillie
Charge: Manslaughter
A child died when her father left her in his car

Service to the Defense as an Expert Witness in a Criminal * or Civil Trial

July, 2009
* Expert Testimony on Memory and Stress to Duane, Morris, LLP
Charge: Manslaughter
State of Pennsylvania v. Rimma Shvartsman
A child died when a caretaker forgot him in a hot car

January, 2010
Expert Witness testimony (Civil Case)
Harrison v Division of Child Services (State of Virginia)
The State of Virginia sought to block the adoption of an infant by a father
who forgot his child in a car

February, 2013
* Expert Witness Testimony: State of Wyoming v. Kaleb Laatsch
Gillette, Wyoming
Charge: Criminal Negligence
A child suffered brain damage when his father forgot him in his car

June, 2014
* Expert Witness testimony: Public Prosecutions v. Jayde Poole
Bendigo, Victoria, Australia
Charge: Manslaughter
A child died when her mother forgot her in her car

September, 2015
* Expert Witness testimony: State of Texas v. Wakesha Ives
El Paso, Texas
Charge: Manslaughter
A child died when her mother forgot her in her car

August, 2016
* Expert Witness testimony: State of Arkansas v. Wade Naramore
Hot Springs, Arkansas
Charge: Manslaughter
A child died when his father forgot him in his car

- October, 2016 (Civil Case)
 Expert Witness testimony: State of Arkansas v. Wade Naramore
 Hot Springs, Arkansas
 Charge: Negligence
 A child died when his father forgot him in his car
- December, 2016 (Civil Case)
 Expert Witness testimony: State of Iowa Child Protective
 Services v. Trent Steinhart
 Des Moines, Iowa
 Charge: Child Abuse
 A parent left a child in hot car while shopping. The child was unharmed.
- August, 2017
 * Expert Witness testimony: State of Iowa v. Lance Williams
 Charge: Manslaughter
 A child died when his father forgot him in his car
- July, 2018
 * Expert Witness testimony: State of Texas v. Raymond Licon, Jr.
 El Paso, Texas
 Charge: Criminal Negligence
 A child drowned when his father forgot him in the bathtub
- July, 2018
 * Expert Witness testimony: State of Texas v. Michael Thedford
 McKinney, Texas
 Charges: Criminally Negligent Homicide, Tampering with evidence
 A child died when his father forgot her in his car

Media Activity Reporting on My Expert Witness Testimony and My
 Perspectives on Children Forgotten in Cars

- November, 2004
 Interactivedads.com
 Good Dads Leaving Kids In Cars: What's causing dads to forget the kids
 they love?
- October 24, 2006
 Dallas Morning News
 A child's death in a vehicle: Unthinkable, yet so real
- July, 2007
 Sentences vary when kids die in hot cars
 Yahoo News:
http://news.yahoo.com/s/ap/20070728/ap_on_re_us/left_to_die
 Fox News:
<http://www.foxnews.com/wires/2007Jul29/0,4670,LefttoDie,00.html>
- July, 2007
 Associated Press:
 PUZZLING TRAGEDY: CHILDREN LEFT TO DIE IN CARS

<http://www.poconorecord.com/apps/pbcs.dll/article?AID=/20070729/NEWS/707290355>

<http://content.usatoday.com/topics/article/Places,+Geography/States,+Territories,+Provinces,+Islands/U.S.+States/Pennsylvania/09wZ3gyezMc5Y/1>

Philly Blurbs: Shvartsman acquitted in tot's hyperthermia death

http://www.phillyburbs.com/news/news_details/article/92/2010/march/22/shvartsman-acquitted-in-tots-hyperthermia-death.html

April, 2010

USF News : USF Experts, Pulitzer Prize Lucky Charm?

<http://usfweb3.usf.edu/absolutenm/templates/?a=2283&z=45>

May, 2010

Parenting Magazine: Tragedy in the Backseat: Heartbreaking stories of hot car deaths-- and how you can avoid them

<http://www.parenting.com/article/Baby/Health/Tragedy+the+Backseat+Hot-Car-Deaths/1>

April , 2010

The Mom Houston Blog: You could leave a baby to die in a car

<http://blogs.chron.com/momhouston/2010/04/you-could-leave-a-baby-to-die-1.html>

August, 2010

New England Cable News

Painful tragedy gives Cape Coral father purpose

http://www.necn.com/08/29/11/Painful-tragedy-gives-Cape-Coral-father-landing_health.html?&apID=8a38406cadf14fea8b201271c99b79a5

September, 2011

Kids and Cars.org

Memory and Brain Expert Addresses Federal Government on "Forgotten Baby Syndrome" to help prevent hot car tragedies

<http://www.kidsandcars.org/upload/press-release/PR-09-23-11.pdf>

October, 2011

Healthy News From Florida Public Media

How Loving Parents Can Leave Their Kids in a Hot Car

<http://healthystate.org/archives/12678>

October, 2011

Florida Department of Transportation

Forgetting a Child —How Can this Happen?

<http://www.dot.state.fl.us/PublicInformationOffice/districtnewsletters/d7fall11.pdf>

July, 2012

CNN Living /Parenting

Tragedy in the backseat: Hot-car deaths

<http://www.cnn.com/2012/07/12/living/hot-car-deaths-parenting/index.html>

February, 2013

Expert Witness Testimony: State of Wyoming v. Kaleb Laatsch

Man found guilty of child endangerment

<http://www.gillette newsrecord.com/stories/Laatsch-found-guilty-of-child-endangerment.86394>

March, 2013

Gillette News Record

Man found guilty of child endangerment

<http://www.gillette newsrecord.com/stories/Laatsch-found-guilty-of-child-endangerment.86394/>

October, 2013

The AUSTRALIAN: Boy dies inside car after dad's memory lapse

<http://www.theaustralian.com.au/news/nation/boy-dies-inside-car-after-dads-memory-lapse/story-e6frg6nf-1226732566622>

December, 2013

Australian Broadcasting Corporation

The lethal consequences of forgetting young children in cars

<http://www.abc.net.au/7.30/content/2013/s3916750.htm>

January, 2014

Herald Sun News - Australia

What happened when a mum forgot her baby was in the car

<http://www.heraldsun.com.au/news/law-order/what-happened-when-a-mum-forgot-her-baby-was-in-the-car/story-fni0fee2-1226810417252>

May, 2014

Global News

What kind of person could forget a child in a car? Anyone, experts say

http://www.theage.com.au/victoria/forgotten_baby_syndrome_expert_witness_called_in_jayde_poole_baby_in_car_death_case_20140723-zw06r.html#ixzz38HoXwg4Y

http://www.heraldsun.com.au/news/law_order/experts_say_jayde_poole_may_have_suffered_forgotten_baby_syndrome_when_she_left_her_baby_in_fatally_hot_car/story-fni0fee2-1226998939674

Jayde Poole found not guilty over death of baby Bella, who died after being forgotten in a hot car

http://www.heraldsun.com.au/news/law_order/jayde_poole_found_not_guilty_over_death_of_baby_bella_who_died_after_being_forgotten_in_a_hot_car/story-fni0fee2-1227000198424?nk=9e4da9b6193cf727f62c9136fd803c07

http://www.mamamia.com.au/news/jayde_poole_forgotten_baby_syndrome/?utm_source=feedburner&utm_medium=%24{email}&utm_campaign=Feed%3A+typepad%2FKsWc+%28%24{Mamamia+-+rss}%29

Professor Diamond told the court the short drive to and from Hungry Jack's was one Ms Poole had done many times before so her dominant brain system, known as basal ganglia, would have put her in auto-pilot mode.

Neuroscientist David Diamond explains forgotten baby syndrome on The Today Show (Australia)

<http://www.youtube.com/watch?v=KtjCWDvrQLs>
The World Today – ABC News Australia

Mother speaks out to prevent child heatstroke deaths

[http://www.theridgefieldpress.com/33843/mother -speaks-out-to-prevent-child-heatstroke-deaths/](http://www.theridgefieldpress.com/33843/mother-speaks-out-to-prevent-child-heatstroke-deaths/)

Both Ms. Fennell and Ms. Rogers-Sätz have read studies from Dr. David Diamond, a professor of psychology, molecular pharmacology and physiology at the University of South Florida and a frequent consultant on “Forgotten Baby Syndrome” court cases.

Hot car deaths spur invention to remind parents

[http://www.hutchnews.com/news/local_state_news/tragic -deaths-lead-to-life-saving-inventions/article_96e101d8 -29ab-538b-86a4-7c9477cce7ed.html](http://www.hutchnews.com/news/local_state_news/tragic-deaths-lead-to-life-saving-inventions/article_96e101d8-29ab-538b-86a4-7c9477cce7ed.html)

David Diamond, a neuroscientist at the University of South Florida who studies the brain and memory, said there are a variety of different inventions surfacing.

An internationally renowned memory and brain expert, Dr. David Diamond,

Two years after the death of his son Cooper, Justin Ross Harris is going on trial for murder.

The Atlanta Journal -Constitution ; Breakdown (podcast)

<http://breakdown.myajc.com/episode/episode-7/>

September, 2016

Congressman Tim Ryan Introduces New Legislation to Get Technology into Vehicles to Prevent Child Heatstroke Deaths

<http://timryan.house.gov/press-release/congressman-tim-ryan-introduces-new-legislation-get-technology-vehicles-prevent-child>

Washington, DC – Today, U.S. Representatives Tim Ryan (D-13th OH), Peter King (R-2nd NY) and Jan Schakowsky (D-9th IL) introduced the Helping Overcome Trauma for Children Alone in Rear Seats Act (HOT CARS Act of 2016, H.R. 6041), a critical piece of legislation that would prevent children from being needlessly killed and injured when left alone in vehicles.

Dr. David Diamond, a professor in the Departments of Psychology, Molecular Pharmacology and Physiology at the University of South Florida, said, "The one aspect which is not a factor is that these children were not forgotten by parents who were reckless with regard to care for their children. This modern day phenomenon must be explained from a brain science perspective, not one that blames parents for being negligent."

HOT CARS Act of 2016 Introduced Today Will Prevent Child Heatstroke Deaths by Getting Much -Needed Technology into Vehicles

<http://www.kidsandcars.org/2016/09/15/hot-cars-act-of-2016-introduced-today-will-prevent-child-heatstroke-deaths-by-getting-much-needed-technology-into-vehicles/>

Washington, D.C. (September 15, 2016) –Today, U.S. Representatives Tim Ryan (D-13th OH), Peter King (R-2nd NY) and Jan Schakowsky (D-9th IL) introduced the Helping Overcome Trauma for Children Alone in Rear Seats Act (HOT CARS Act of 2016, H.R. 6041), a critical piece of legislation that would prevent children from being needlessly killed and injured when left alone in vehicles.

Dr. David Diamond, a professor in the Departments of Psychology, Molecular Pharmacology and Physiology at the University of South Florida, said, "We must have a system that provides a reminder to parents of the presence of a child in the backseat for that rare occasion when a child's life is in danger because parents, through no fault of their own, lose awareness of the presence of their child in the car."

Memory researcher: Charges too harsh against father of boy who died in car

<http://www.fox13news.com/news/local-news/205099562-story>

TAMPA (FOX 13) - It's a story stirring controversy between parents. Last week, a Hillsborough County firefighter was charged with aggravated manslaughter after allegedly leaving his 2-year-old inside a hot car, leading to the child's death.

"There are lots of things we forget. We forget material objects. We forget appointments. But we don't forget our children in cars," Diamond explained. It's a thought process

Professor David Diamond used to believe himself, but the USF psychology professor and memory scientist has changed his tune after extensive research into how the brain snaps into autopilot during everyday life.

We make these fatal memory errors. And we say they shouldn't happen, but they

[http://www.abccactionnews.com/news/local -news/mourning -families-](http://www.abccactionnews.com/news/local-news/mourning-families-)

In Gene Weingarten's Pulitzer prize-winning piece about vehicular heatstroke tragedies, "Fatal Distraction," Dr. David Diamond, a neurobehavioral scientist, deduced from his research of vehicular heatstroke deaths that the most common factor associated with parents who forgot their child in the back seat was a change in routine.

August, 2017

Summer Heat Turns Cars Into Ovens

<https://share.kaiserpermanente.org/article/>_____

Expert: Dad "lost awareness" of son

<http://www.weareiowa.com/news/local> -news/expert -dad --